# USER'S MANUAL

## AXIS Media Control

AXIS COMMUNICATIONS

# Notices

### About This Document

This manual is intended for administrators and users of the AXIS cameras and video encoders that want more detailed information about configuring AXIS Media Control.

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### Axis Customer Services

Should you require any technical assistance, please contact your Axis reseller. If your questions cannot be answered immediately, your reseller will forward your queries through the appropriate channels to ensure a rapid response. If you are connected to the Internet, you can:

- Download user documentation and firmware updates
- Find answers to resolved problems in the FAQ database. Search by product, category, or phrases.
- Report problems to Axis support staff by logging in to your private support area.
- Visit the Axis Support Web at www.axis.com/techsup/

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# Introduction

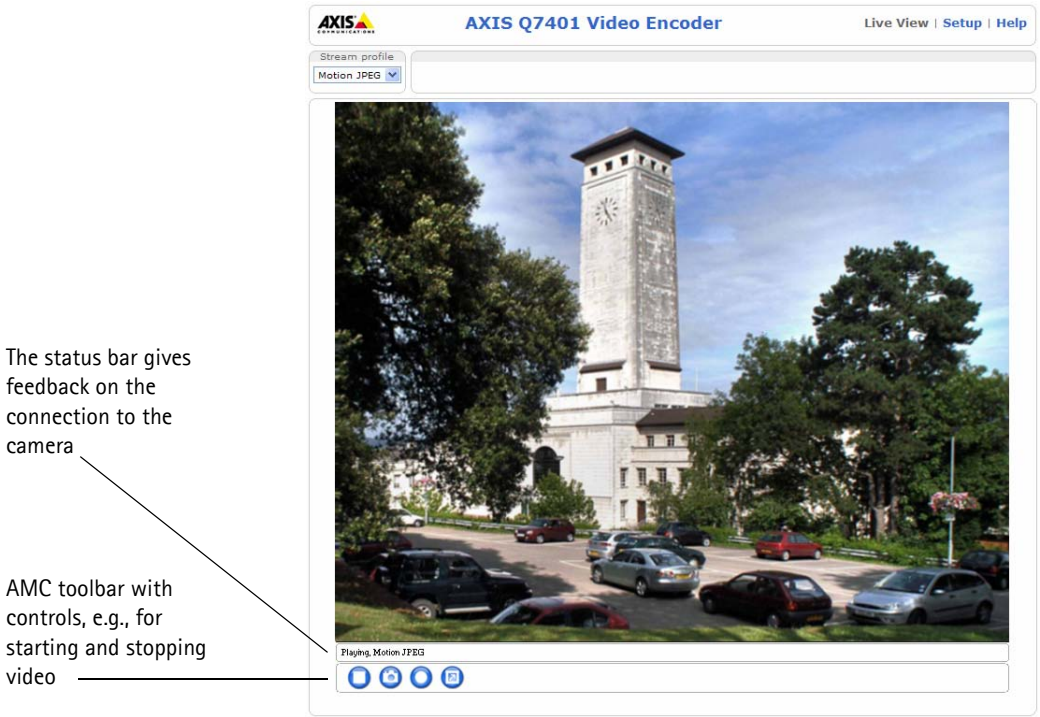
This document gives you an overview of the controls provided by Axis Media Control (AMC). AMC is an ActiveX component that enables live video to be viewed in a Web browser. Administrator or Operator rights are required to install and use AMC.

| | Motion JPEG | MPEG/H.264 |
|---|---|---|
| **Web Browser** | Internet Explorer 6.0 or later | Internet Explorer 6.0 or later |
| **Operating System** | • Microsoft Windows 2000<br>• Microsoft Windows 2003 Server<br>• Microsoft Windows XP Professional<br>• Microsoft Windows Vista<br>• Microsoft Windows 2008 Server | • Microsoft Windows 2000<br>• Microsoft Windows 2003 Server<br>• Microsoft Windows XP Professional<br>• Microsoft Windows Vista<br>• Microsoft Windows 2008 Server |
| **CPU** | Intel Pentium III 500 MHz or higher (1 GHz recommended), or comparable AMD processor | Intel Pentium III 1 GHz or higher, or comparable AMD processor |
| **Memory** | 128 MB RAM | 128 MB RAM |
| **Graphics Card** | 16 MB video memory (32/64 MB recommended for high resolution/color depths) | 64 MB video memory |
| **Software** | | DirectX 9.0 or higher |

**Notes:**

- Always use the latest service pack for your version of Microsoft Windows.
- If you are using Microsoft Windows 2008 Server, you will need to install the Desktop Experience to be able to use Windows Media Player and Windows Media Format Runtime (WMFR). See *Install Desktop Experience (Windows 2008 Server)*, on page 13.

In addition to supporting streaming video, AMC provides additional camera controls. The controls provided by AMC will vary according to the features of the Axis camera and include controls for MPEG-4, H.264, audio, motion detection, and Pan/Tilt/Zoom.


AXIS Q7401 Video Encoder
Live View | Setup | Help
Stream profile
Motion JPEG
Playing, Motion JPEG
The status bar gives feedback on the connection to the camera
AMC toolbar with controls, e.g., for starting and stopping video

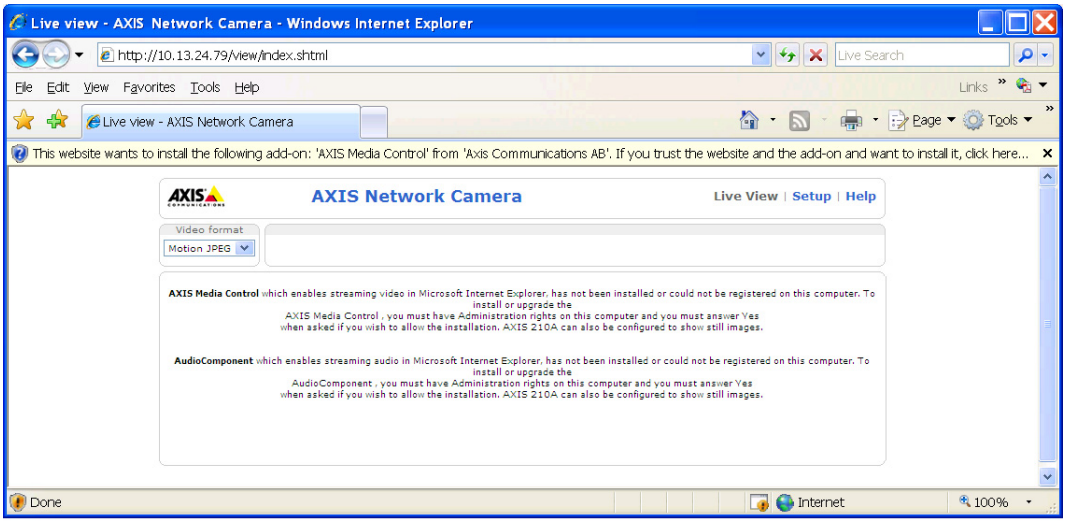
# Installing AMC and Decoders

## Install AMC

If you are logged in and have Administrator rights to your computer, AMC will be installed when you access an Axis camera or video encoder for the first time, or when a newer version of the AMC is required by the Axis camera or video encoder.

**Note:** A system administrator may also allow other types of users to install and update AMC. If you have a problem installing AMC, please see you system administrator.

1. Start the Web browser and enter the IP address or host name for the camera or video encoder you want to access.
2. A dialog bar at the top of the browser will say that this website wants to install AMC. Click this bar to bring up a menu that asks if you want to Install ActiveX Control. Select **Install ActiveX Control** to continue.


Live view - AXIS Network Camera - Windows Internet Explorer
http://10.13.24.79/view/index.shtml
Live Search
File Edit View Favorites Tools Help
Links
Live view - AXIS Network Camera
Page Tools
This website wants to install the following add-on: 'AXIS Media Control' from 'Axis Communications AB'. If you trust the website and the add-on and want to install it, click here...
AXIS Network Camera
Live View | Setup | Help
Video format
Motion JPEG
AXIS Media Control which enables streaming video in Microsoft Internet Explorer, has not been installed or could not be registered on this computer. To install or upgrade the AXIS Media Control , you must have Administration rights on this computer and you must answer Yes when asked if you wish to allow the installation. AXIS 210A can also be configured to show still images.
AudioComponent which enables streaming audio in Microsoft Internet Explorer, has not been installed or could not be registered on this computer. To install or upgrade the AudioComponent , you must have Administration rights on this computer and you must answer Yes when asked if you wish to allow the installation. AXIS 210A can also be configured to show still images.
Done
Internet
100%

3. (Windows Vista, Windows 2008 Server) A User Account popup will ask if you want to install AMC. Click **Continue**.

Internet Explorer Add-on Installer - Security Warning
Do you want to install this software?
Name: AXIS Media Control
Publisher: Axis Communications AB
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

4. A Security Warning dialog will appear. Click **Install** to proceed with the installation.

Internet Explorer - Security Warning
Do you want to install this software?
Name: AXIS Media Control
Publisher: Axis Communications AB
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

**Note:** Make sure that Axis Communications AB is listed as the Publisher!

5. AMC is now installed and can be configured by opening the AMC Control Panel. For more information about AMC configuration see *AMC Control Panel*, on page 16.

## Remove AMC (Windows 2000, Windows 2003 Server, and Windows XP)

1. If you need to remove AMC from your computer, click **Start > Settings > Control Panel > Add/Remove Programs** to remove the program.
2. Select **AXIS Media Control Embedded**. Do not delete the **AXIS Media Control** program since other Axis products may use it.

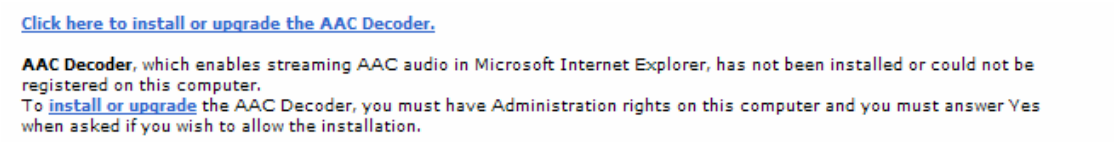
## Remove AMC (Windows Vista, Windows 2008 Server)

1. If you need to remove AMC from your computer, click **Start > Control Panel > Programs > Uninstall a Program** to remove the program.
2. Select **AXIS Media Control Embedded**. Do not delete the **AXIS Media Control** program since other Axis products may use it.

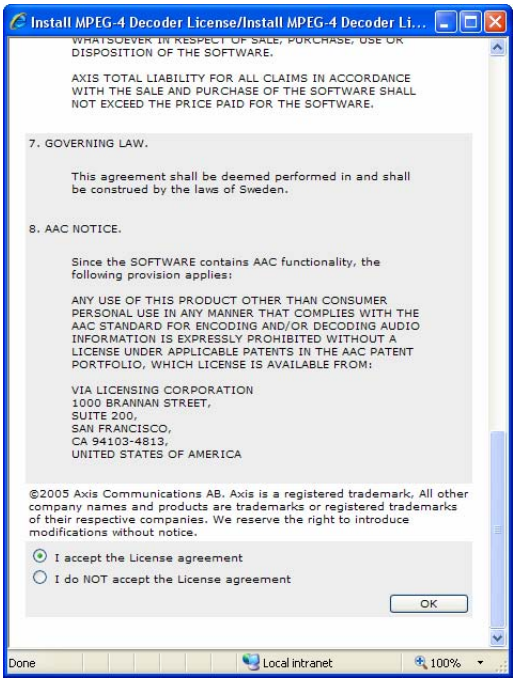
## Install AAC Decoder

If you want to hear or transmit audio from your Axis camera over your network or over the Internet, and your hardware supports AAC audio, you will need to install an AAC decoder.

1. To start the installation, select the **Click here to install or upgrade the AAC Decoder** link in the Live View page as shown in the figure below.


Click here to install or upgrade the AAC Decoder.
AAC Decoder, which enables streaming AAC audio in Microsoft Internet Explorer, has not been installed or could not be registered on this computer.
To install or upgrade the AAC Decoder, you must have Administration rights on this computer and you must answer Yes when asked if you wish to allow the installation.

2. Read through the AAC license agreement that appears, and if you agree to the conditions, select **I accept the License agreement** and click **OK**.


Install MPEG-4 Decoder License/Install MPEG-4 Decoder Li...
DISPOSITION OF THE SOFTWARE.
AXIS TOTAL LIABILITY FOR ALL CLAIMS IN ACCORDANCE WITH THE SALE AND PURCHASE OF THE SOFTWARE SHALL NOT EXCEED THE PRICE PAID FOR THE SOFTWARE.
7. GOVERNING LAW.
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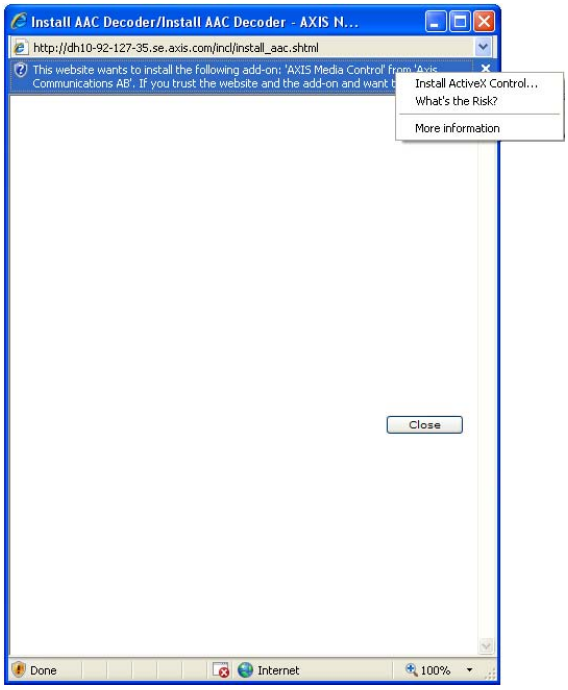
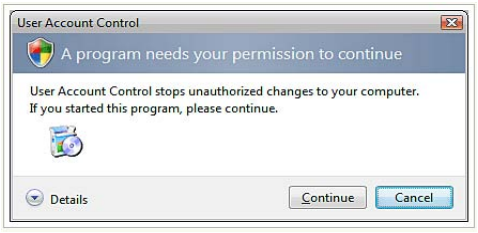
I accept the License agreement
I do NOT accept the License agreement
OK
Done
Local intranet
100%

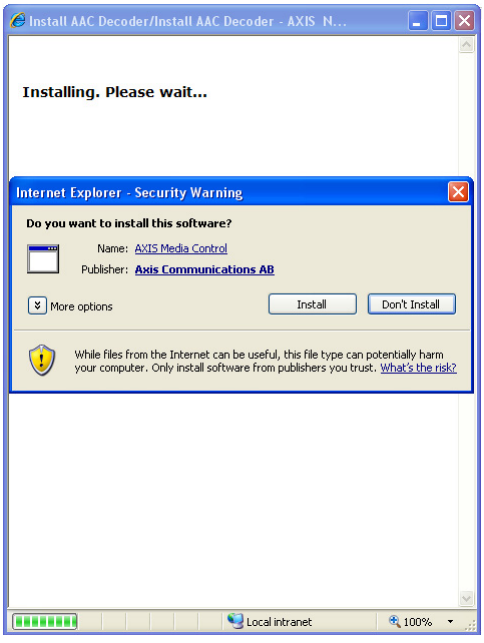
3. Click on the dialog bar at the top of the window and select **Install ActiveX Control**.


Install AAC Decoder/Install AAC Decoder - AXIS N...
http://dh10-92-127-35.se.axis.com/incl/install_aac.shtml
This website wants to install the following add-on: 'AXIS Media Control' from 'Axis Communications AB'. If you trust the website and the add-on and want t
Install ActiveX Control...
What's the Risk?
More information
Close
Done
Internet
100%

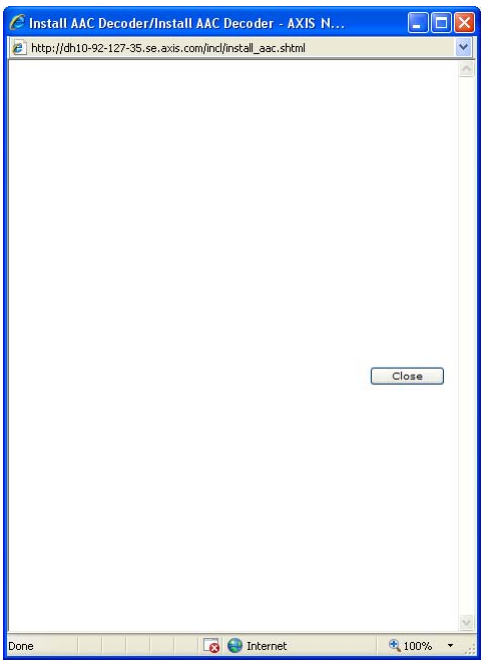
4. (Windows Vista, Windows 2008 Server) A User Account popup will ask if you want to continue the installation. Click **Continue**.


User Account Control
A program needs your permission to continue
User Account Control stops unauthorized changes to your computer.
If you started this program, please continue.
Details
Continue
Cancel

5. An Internet Explorer Security warning popup will ask if you want to continue the installation. Click **Install**.


Install AAC Decoder/Install AAC Decoder - AXIS N...
Installing. Please wait...
Internet Explorer - Security Warning
Do you want to install this software?
Name: AXIS Media Control
Publisher: Axis Communications AB
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?
Local intranet
100%

6. Finally, click **Close** to complete the installation.



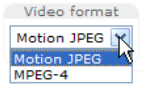

## Remove AAC Decoder

To remove the decoder:

1. Open the **C:\Program Files\Axis Communications\Components** folder.
2. Right-click the file **AxAacDec.dll** and select Delete.

## Install MPEG-4 Decoder

On the Live View page of your Axis camera, you can select to view live video over your network or over the Internet, using either Motion JPEG, MPEG-4 or H.264. If you select MPEG-4, you will be prompted to install an MPEG-4 decoder.

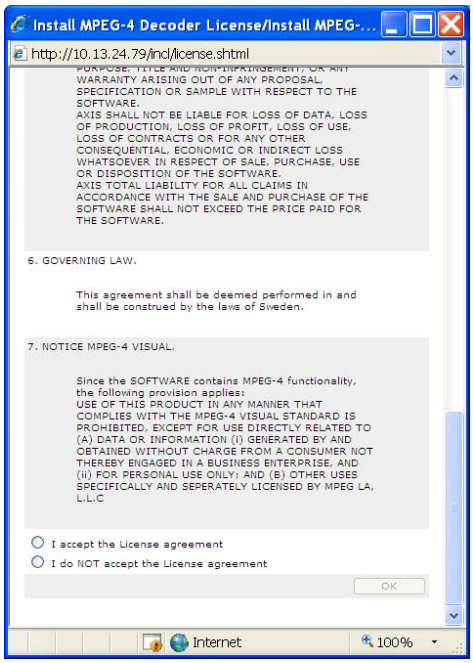



**Note:** A system administrator may prevent users from installing and updating the MPEG-4 decoder. If you have a problem installing the MPEG-4 decoder, please see you system administrator.

1. To start the installation, select the Click here to install or upgrade the MPEG-4 Decoder link in the Live View page as shown in the figure below.

Click here to install or upgrade the MPEG-4 Decoder.
MPEG-4 Decoder, which enables streaming video in Microsoft Internet Explorer, has not been installed or could not be registered on this computer.
To install or upgrade the MPEG-4 Decoder, you must have Administration rights on this computer and you must answer Yes
when asked if you wish to allow the installation. AXIS 216FD can also be configured to show still images.

2. Read through the MPEG license agreement that appears, and if you agree to the conditions, select I accept the License agreement and click OK.


Install MPEG-4 Decoder License/Install MPEG-...
http://10.13.24.79/incl/license.shtml
WARRANTY ARISING OUT OF ANY PROPOSAL, SPECIFICATION OR SAMPLE WITH RESPECT TO THE SOFTWARE.
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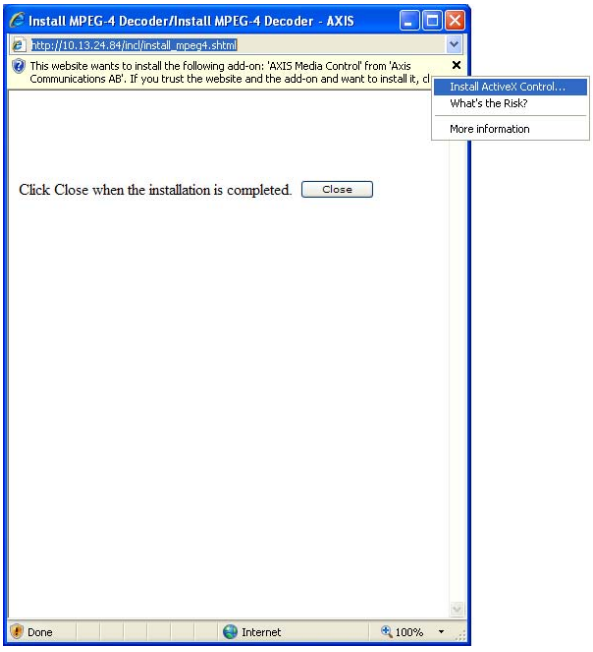
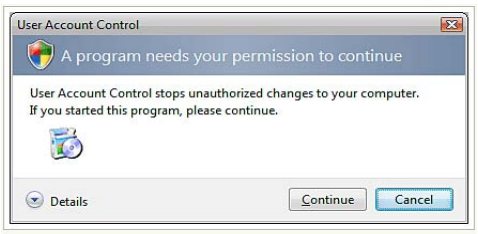
I accept the License agreement
I do NOT accept the License agreement
OK
Internet
100%

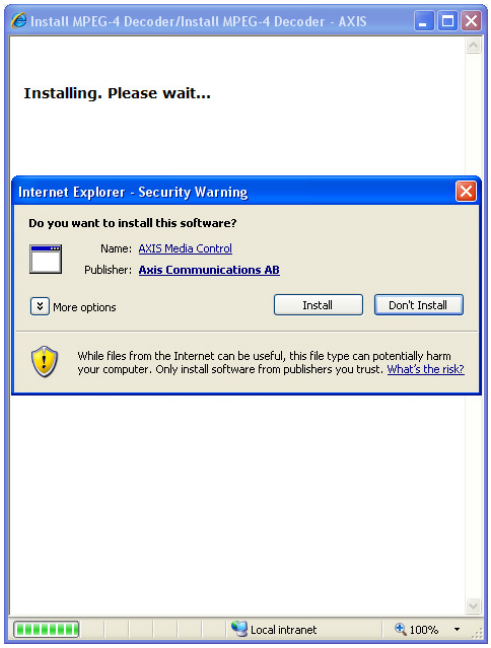
3. Click on the dialog bar at the top of the window and select **Install ActiveX Control**.


Install MPEG-4 Decoder/Install MPEG-4 Decoder - AXIS
http://10.13.24.84/incl/install_mpeg4.shtml
This website wants to install the following add-on: 'AXIS Media Control' from 'Axis Communications AB'. If you trust the website and the add-on and want to install it, cl
Install ActiveX Control...
What's the Risk?
More information
Click Close when the installation is completed.
Close
Done
Internet
100%

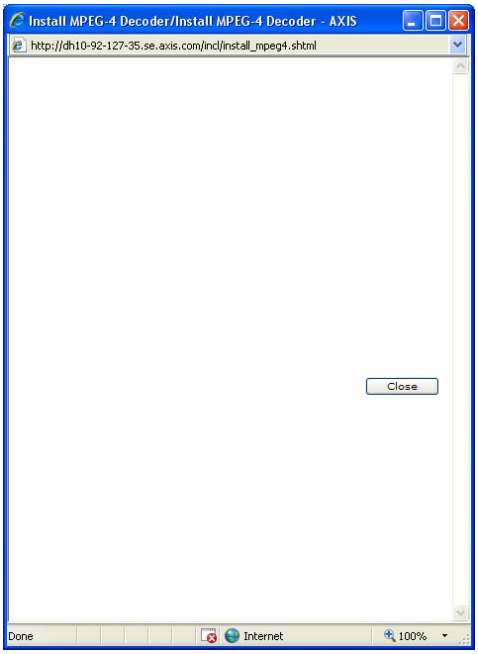
4. (Windows Vista, Windows 2008 Server) A User Account popup will ask if you want to continue the installation. Click **Continue**.


User Account Control
A program needs your permission to continue
User Account Control stops unauthorized changes to your computer.
If you started this program, please continue.
Details
Continue
Cancel

5. An Internet Explorer Security warning popup will ask if you want to continue the installation. Click **Install**..


Install MPEG-4 Decoder/Install MPEG-4 Decoder - AXIS
Installing. Please wait...
Internet Explorer - Security Warning
Do you want to install this software?
Name: AXIS Media Control
Publisher: Axis Communications AB
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?
Local intranet
100%

6. Click **Close** to complete the installation.



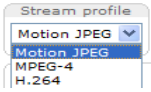

## Remove MPEG-4 Decoder

To remove the decoder:

1. Open the **C:\Program Files\Axis Communications\Components** folder.
2. Right-click the file **AxMP4Dec.dll** and select **Delete**.

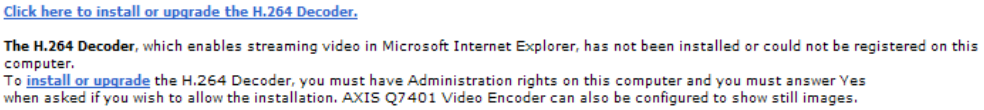
## Install H.264 Decoder

On the Live View page of your Axis camera, you can select to view live video over your network or over the Internet, using either Motion JPEG, MPEG-4 or H.264. If you select H.264, you will be prompted to install an H.264 decoder.

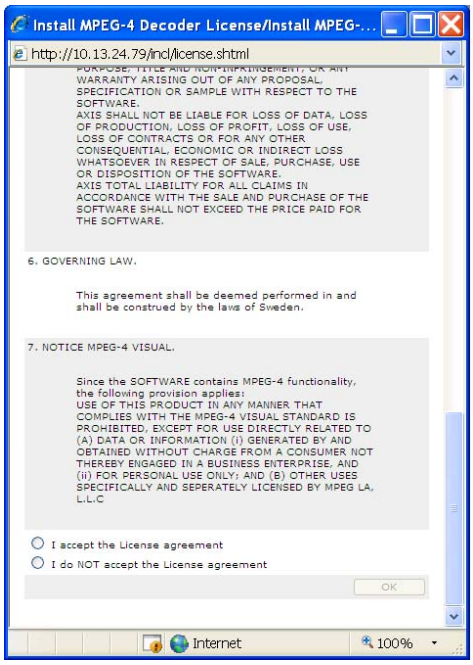



**Note:** A system administrator may prevent users from installing and updating the H.264 decoder. If you have a problem installing the MPEG-4 decoder, please see you system administrator.

1. To start the installation, select the **Click here to install or upgrade the H.264 Decoder** link in the Live View page as shown in the figure below.


Click here to install or upgrade the H.264 Decoder.
The H.264 Decoder, which enables streaming video in Microsoft Internet Explorer, has not been installed or could not be registered on this computer.
To install or upgrade the H.264 Decoder, you must have Administration rights on this computer and you must answer Yes when asked if you wish to allow the installation. AXIS Q7401 Video Encoder can also be configured to show still images.

2. Read through the H.264 license agreement that appears, and if you agree to the conditions, select **I accept the License agreement** and click OK.


Install MPEG-4 Decoder License/Install MPEG-...
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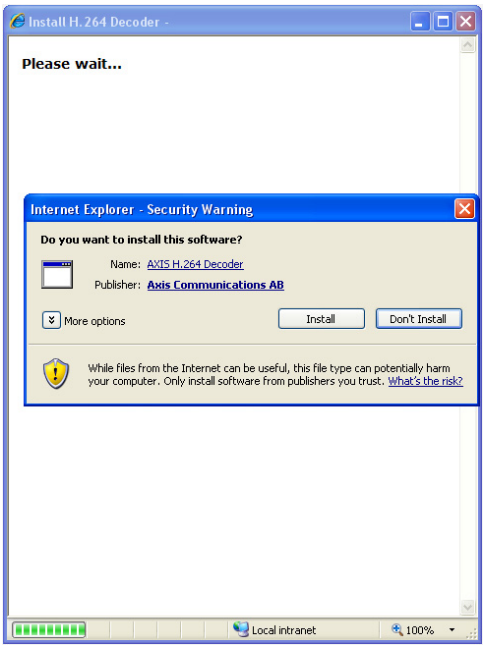
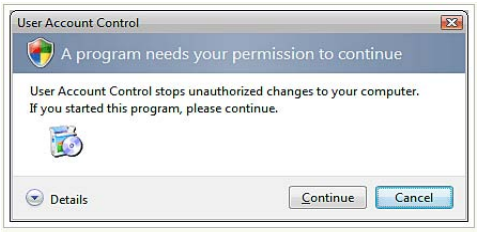
I accept the License agreement
I do NOT accept the License agreement
OK
Internet
100%

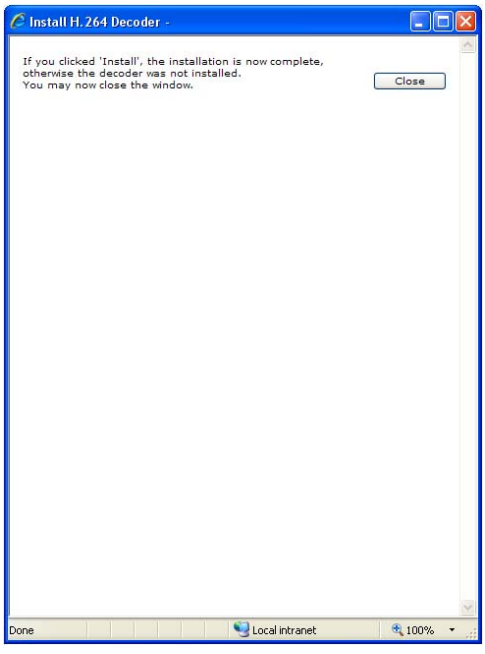
3. An Internet Explorer Security warning popup will ask if you want to continue the installation. Click **Install**..


Install H.264 Decoder -
Please wait...
Internet Explorer - Security Warning
Do you want to install this software?
Name: AXIS H.264 Decoder
Publisher: Axis Communications AB
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?
Local intranet
100%

4. (Windows Vista, Windows 2008 Server) A User Account popup will ask if you want to continue the installation. Click **Continue**.


User Account Control
A program needs your permission to continue
User Account Control stops unauthorized changes to your computer.
If you started this program, please continue.
Details
Continue
Cancel

5. Click **Close** to complete the installation.


Install H.264 Decoder -
If you clicked 'Install', the installation is now complete, otherwise the decoder was not installed.
You may now close the window.
Close
Done
Local intranet
100%

## Remove H.264 Decoder

To remove the decoder:

1. Open the **C:\Program Files\Axis Communications\Components** folder.
2. Right-click the file **AxH264Dec.dll** and select **Delete**.

## Install Windows Media Format Runtime

Windows Media Format Runtime (WMFR) is used to create high-definition Windows Media Video files. For more information see the *Recording Tab*, on page 27.

If WMFR is not already installed on your computer when you install AMC, you will be prompted to install Windows Media Player. You can wait to install Windows Media Player, but you cannot record video using AMC until it is installed. See the *Recording Tab*, on page 27.

**Notes:**

- WMFR is included in Windows XP SP2 and Windows Vista, and will automatically be installed when you download and install XP SP2.
- For Microsoft Windows 2008 Server, you will need to install the Desktop Experience. See *Install Desktop Experience (Windows 2008 Server)*.

## Install Desktop Experience (Windows 2008 Server)

To view and create video using Microsoft Windows 2008 Server, you will need to install the Desktop Experience.

1. Open **Server Manager**: click **Start**, point to **Administrative Tools**, and click **Server Manager**.
2. In the **Features Summary** section, click **Add features**.
3. Select the **Desktop Experience** check box, click **Next**, and then click **Install**.

# Toolbar Controls in Live View

## General controls

There are AMC controls that are common to all cameras.

The **Play** button connects to the Axis product and starts playing a media stream.

The **Stop** button stops the stream being played.

The **Snapshot** button takes a snapshot of the current image. The location where the image is saved can be specified using the AMC Control Panel.

Click the **View Full Screen** button and the video image will fill the entire screen area. No other windows will be visible. Press **Esc** (Escape) on the computer keyboard to cancel full screen view, or click the right mouse button and select **Normal view**.

The **Record** button is used to record the current video stream. The location where the recording is saved can be specified using the AMC Control Panel.

## Audio controls

There are some AMC controls that are specifically for audio, but are only visible if audio is enabled in the Web Setup page for your Axis Camera. These controls change the settings for the speaker and microphone connected to the camera or video encoder that is being configured.

Click the **Speaker** button to switch the sound on and off to your computer's speaker.

When playing a media stream from an Axis Product, the **Speaker** button shows if audio is currently being received. If the button is covered with a cross, audio is not being received.

If you have set your camera to half duplex mode and the half duplex Listen button appears in the Live View page of your Axis camera, you are only able to receive audio from the built-in or external camera microphone. To be able to send audio, click this button. See note below.

If you have set your camera to half duplex mode and the half duplex Talk button appears in the Live View page of your Axis camera, you are only able to send audio to the speakers connected to your Axis camera. To be able to receive audio, click this button.

Click the Microphone button to switch the sound on and off to your computer's microphone (or other selected audio source). In Simplex - speaker only mode, you can click this button to stop sending audio to the camera. See note below.

When playing a media stream from an Axis Product, the **Microphone** button indicates if audio is currently being transmitted to the server. If the button is covered with a cross, audio is not yet being sent.

Use this scale to control the volume of the speakers and the microphone.

**Note:** In Simplex – speaker only mode microphone only, you can use either the Microphone button or the half duplex Talk button to stop sending audio to the camera. To send audio, both buttons must be enabled.

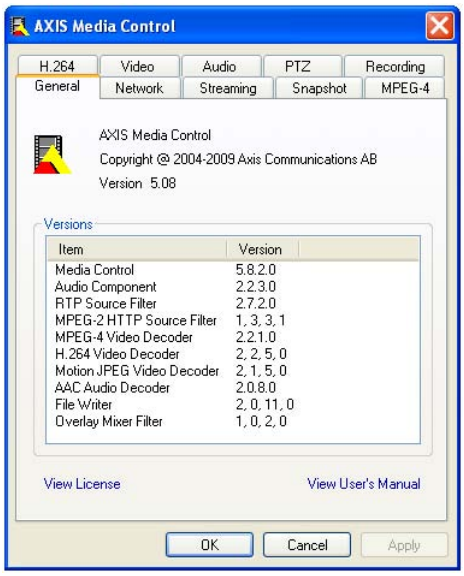
## Pan/Tilt/Zoom controls

The default setting for PTZ is the Center Mode. When in Center Mode, click on any part of the image other than its exact center and the camera will move so that the point you clicked on becomes the new center of the image.

If you select Emulate Joystick Mode, the camera moves in the direction of the mouse pointer. If you click and hold down on the left mouse button, and then point your cursor at the lower left hand corner of the image, the camera continues to move left and down until you release the mouse button.

Area Zoom allows you to zoom in on a specific area of the video stream. Put the cursor where you want the center of the area you want to zoom in on, and then drag the cursor out as far as the size of the area you want to zoom in on. Note that AMC is dependent on the camera's zoom calibration.

# AMC Control Panel

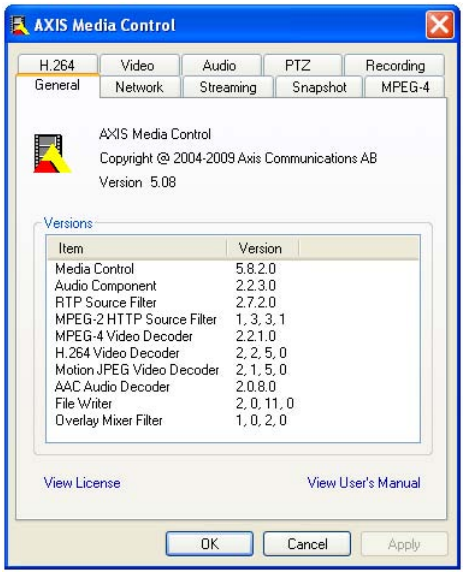



The AMC Control Panel is used to configure AMC. The figure below, the **General** tab, shows the different parts of AMC that can be configured such as **Audio**, **Network** and **PTZ**. The sections below describe each of these AMC tabs and how to configure AMC.

Open the AMC Control Panel by clicking **Start > Settings > Control Panel > Axis Media Control** or by right clicking in the video window. Depending on which camera you are using, you will have either some or all of the following tabs shown in the figure below.

**Note:** If you are using a simpler Axis camera, not all of the tabs shown below will be visible. If you then log into a camera with greater functionality, the necessary software will also be installed for use with that camera. If you later go back to the simpler camera, while not usable, the additional tabs will still be visible.

# General Tab




The AMC control panel configures advanced properties used for all AXIS products. The AMC control panel is opened by clicking **Start > Settings > Control Panel** > **Axis Media Control**.

## Versions

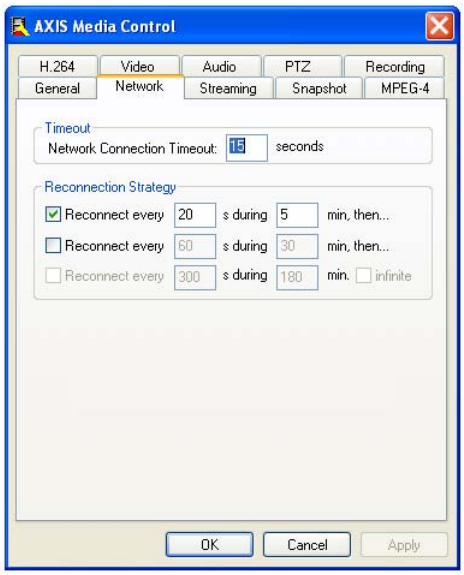
Versions shows the software that has been installed to use with AMC and your Axis camera. It lists the version number of all software installed for use with AMC as well as the version number of AMC that is currently installed.

To view the AXIS AMC license agreement, click on **View License**, or open the following link in your Web browser: http://www.axis.com/techsup/software/amc/license.htm

## View User's Manual

Click on **View User's Manual** to open the AXIS AMC User Manual (PDF), or open the following link in your Web browser: http://www.axis.com/techsup/software/amc/index.htm

# Network Tab




## Timeout

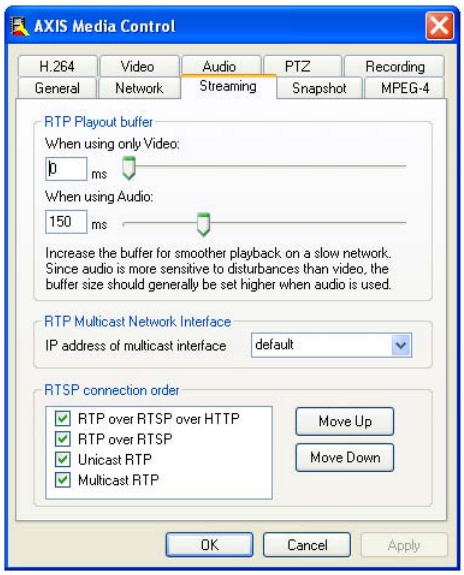
Timeout is the maximum time (seconds) that AMC will attempt to connect to an Axis product before displaying an error message. The maximum timeout is 999 seconds; the default is 15 seconds.

## Reconnection strategy

If for any reason AMC looses its connection with your Axis camera, a Reconnection Strategy can be used to set up a reconnection schedule. The default strategy is for AMC to try to reconnect to the camera every 20 seconds for 5 minutes. If AMC is not able to reconnect to your camera within 5 minutes, an error message will pop up telling you that AMC was not able to reconnect to the camera.

If you still want AMC to keep trying to reconnect to your camera, you can also set up a second and even a third period of time. If you want AMC to keep trying indefinitely to reconnect to your camera, click the infinite box.

# Streaming Tab




## RTP Playout buffer

**When using only Video –** This setting specifies the amount of time one or more media streams are delayed in Live View. If only video is used, this setting can normally be set low. Video streams are less sensitive than audio streams to stutter caused by a slow or unstable network.

**When using Audio –** This setting specifies the amount of time one or more media streams are delayed in Live View. If audio is used or audio and video, a higher value may prevent stutter caused by a slow or unstable network connection.

## RTP Multicast Network Interface

The Multicast Network Interface is the interface that AMC will use to connect to the multicast stream sent from the Axis camera or video encoder. Windows will use the default interface (see the figure above), unless you specify a specific interface listed in the drop down menu IP address of multicast interface.

For example, a specific IP address can be selected if the multicast stream sent from the network camera or video encoder is not visible. Or, if you have more than one network interface, you can select which network interface AMC will use to connect to the multicast stream sent from the Axis camera or video encoder listed.

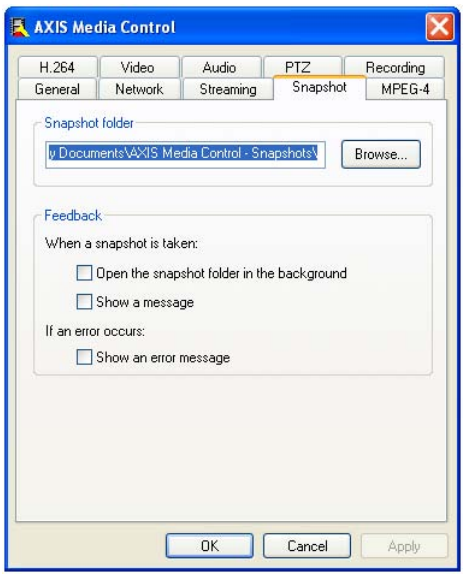
## RTSP connection order

AMC will use one of the protocols listed above depending on your network environment. It will go through the list until it finds a protocol that works. That protocol will then be used for future connections.

The default setting is shown in the figure above, but you can either deselect a protocol or change the order AMC uses to select a protocol, by highlighting a protocol and clicking Move Up and Move Down.

**Note:** If you can see MPEG-4/H.264 video in your LAN but not over the Internet using Internet explorer, make sure that you have selected **RTP over RTSP over HTTP**, and that it is at the top of the RTSP connection order.

# Snapshot Tab




## Snapshot folder

Specify the snapshot folder where snapshot images will be stored (when the Snapshot button is clicked). The default snapshot folder is My Documents\AXIS Media Control - Snapshots. This folder will be created if it does not already exist.

If you want to save your snapshot to another folder, simply click on the Browse button and choose the folder you would like to use to save your snapshot.

## Feedback

It is also possible to specify the form of feedback given when taking a snapshot.

**When a snapshot is taken –** Windows will notify you that your snapshot has been taken or failed to be taken via one of its system sounds (See Assign sounds to program events in your MS Help and Support files).

You can also select if you want the snapshot folder to open up in the background for quicker access to your snapshots, and for an on screen message to appear when a snapshot is taken.

**If an error message occurs –** If you would like to be notified of an error with your snapshot via a message on the Live View page, select this option. If you select Show an error message, system sound notification will be turned off. See *Feedback*, on page 27 for an example.

# MPEG-4 Tab

This tab sets the advanced properties for MPEG-4 video processing and default video decoder.

## Video Processing

**Decode only key frames -** By default, AXIS Media Control decodes as many MPEG-4 video frames as possible given the capabilities and performance of the computer. To decrease the amount of CPU capacity used for video processing, it is possible to only decode key frames. This will, however, greatly reduce the quality of the video being displayed. For an explanation of different types of MPEG frames, please refer to the MPEG standards.

**Allow frame dropping -** This is the default setting that enables the MPEG-4 Video Decoder to drop frames if rendering falls behind.

**Deblocking filter -** De-blocking enhances image quality by smoothing the sharp edges between different sub-image blocks in MPEG-4, but it requires a higher CPU load.

**Note:** To use **Allow frame dropping** and **Deblocking filter** requires that you install or upgrade the AXIS MPEG-4 Video Decoder to version 2.2.0.0 or higher. You will be notified about the need to update the decoder when you try to enable these features.

## Default Video Decoder

The MPEG-4 video decoder can be used to view standard MPEG-4 streams and files produced by other sources. This decoder may, however, conflict with other MPEG-4 applications already installed in the target computer, e.g., XVID, DIVX6 players. Use the buttons on this tab to attempt to resolve conflicts, or to set this decoder as the default for viewing MPEG-4 video content.

# H.264 Tab

This tab sets the advanced properties for H.264 video processing and default video decoder.

## Video Processing

**Decode only key frames –** By default, AXIS Media Control decodes as many H.264 video frames as possible given the capabilities and performance of the computer. To decrease the amount of CPU capacity used for video processing, it is possible to only decode key frames. This will, however, greatly reduce the quality of the video being displayed. For an explanation of different types of MPEG frames, please refer to the MPEG standards.

**Allow frame dropping –** This is the default setting that enables the AXIS H.264 Video Decoder to drop frames if rendering falls behind.

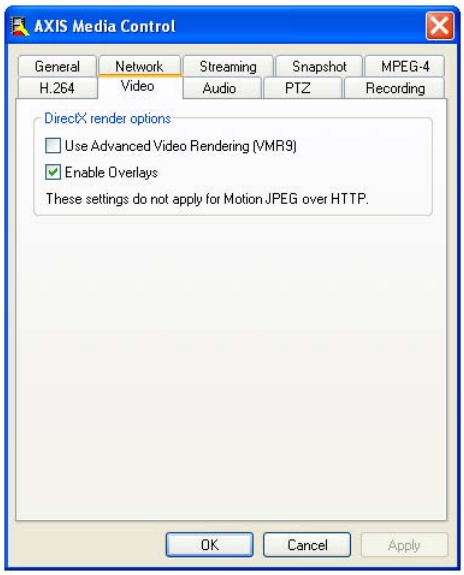
**Decoding quality –** The decoding quality can be changed for H.264 video. The default setting is **Best Quality**. **Low CPU usage** will increase performance but image quality will be less good. The **Dynamic** option enables the decoder to adjust decoding quality in real time according to the current system state.

**Note:** To use **Allow frame dropping** and **Decoding quality** requires that you install or upgrade the AXIS H.264 Video Decoder to version 2.2.0.0 or higher. You will be notified about the need to update the decoder when you try to enable these features.

## Default Video Decoder

The H.264 video decoder can be used to view standard H.264 streams and files produced by other sources. This decoder may, however, conflict with other H.264 applications already installed in the target computer, e.g., XVID, DIVX6 players. Use the buttons on this tab to attempt to resolve conflicts, or to set this decoder as the default for viewing H.264 video content.

# Video Tab

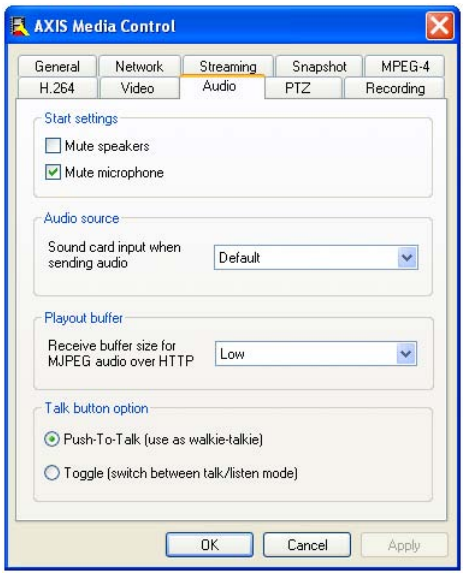



## DirectX render options

**Use Advanced Video Rendering –** A new video renderer has been added with the introduction of DirectX 9. If problems are encountered when rendering the video stream, select the **Use Advanced Video Rendering** check box.

**Enable Overlays –** All client side overlays, such as the crosshair in **Emulated Joystick Mode**, can be disabled with the **Enable Overlays** checkbox. This will override the **Enable PTZ Overlays** setting in the PTZ tab. See *PTZ Tab*, on page 25. This setting will take effect after a restart of the video stream with the **Stop/Start** button, or a refresh of the browser.

# Audio Tab




The Audio Tab controls the default AMC start settings for your PC's speakers and microphone and audio buffering.

## Start Settings

**Mute speakers –** Turn off the sound from your PC's speakers.

**Mute microphone –** Turn off the sound from your PC's microphone.

## Audio source

This setting enables the user to change which sound card input should be used when transmitting audio to the server. The **Default** setting will try to use a microphone input on the server's sound card.

## Playout buffer

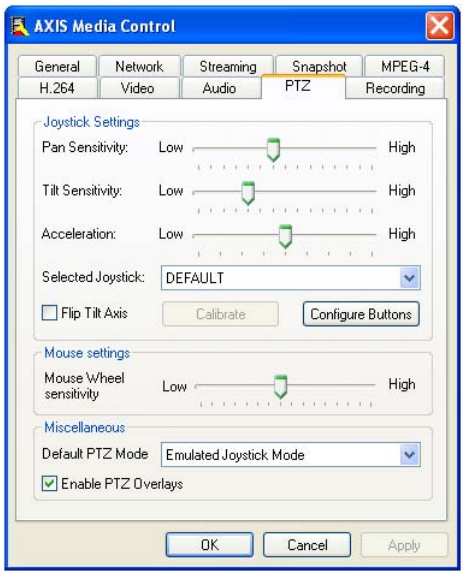
The audio buffer size MJPEG audio over HTTP can be adjusted from min to max depending on the quality of your network connection. For networks with lower bandwidth, a higher audio buffering level will reduce audio break-up, but may introduce a noticeable lag in audio transmission. The default value is **Low**, which assumes an internal network or a network with good bandwidth.

## Talk Button Option

**Push-to-talk –** If you have configured you Axis camera to be in half duplex mode, select this option to speak by clicking and holding down the microphone button. Let go of the microphone button to be able to hear.

**Toggle –** Click once to talk and click once to listen. Note that this option is only valid in half duplex mode and in Simplex - speaker only modes. In Simplex - mode, you switch between talk and secrecy (i.e., no audio is transmitted).

# PTZ Tab




## Joystick Settings

If a joystick such as the AXIS 295 Video Surveillance Joystick is used with AMC, **Joystick Settings** is used to configure the following:

**Note:** See *AXIS 295 Video Surveillance Joystick*, on page 30 for a description of the joystick and its parts.

**Pan Sensitivity –** Controls the horizontal (left/right) sensitivity of your joystick.

At low sensitivity, maximum speed is achieved by moving the joystick arm far to the left or right.

At high sensitivity, maximum speed is achieved by moving the joystick arm very little to the left or right.

**Tilt Sensitivity –** Use the Tilt Sensitivity scale to adjust vertical (up/down) sensitivity of your joystick.

At low sensitivity, maximum speed is achieved by moving the joystick arm far up or down.

At high sensitivity, maximum speed is achieved by moving the joystick arm very little up or down.

**Acceleration –** Adjusts PTZ sensitivity relative to how far the joystick is moved.

At low Acceleration, small and large joystick movements will have the same sensitivity.

At high Acceleration, small joystick movements will have lower sensitivity than large joystick movements.

**Selected Joystick –** If you have more than one joystick attached to your computer, use this drop down menu to select which joystick you want to use with your Axis PTZ camera. The default joystick will appear in this box when it is plugged into a USB port and after you restart the AMC Control Panel.

**Flip Tilt Axis –** The default setting for AMC is for the camera to tilt up if you push your joystick arm forward, and tilt down if you pull your joystick arm back.

Check **Flip Tilt Axis** if you would like to reverse how your camera tilts. In other words, the camera will now tilt down if you push the joystick arm forward and tilt up if you pull the joystick arm back.

**Calibrate –** Click Calibrate to open the Game Controllers window located in the MS Windows control panel, which is used to configure game controllers located on the system. See the MS Windows help files for more information.

**Configure Buttons -** Click on Configure Buttons to bring up the Configure Button Menu. Your Axis joystick has 12 buttons that can each be programmed to perform one of several different functions. See Joystick button configuration below for more information.

## Mouse Settings

Use this setting to adjust the zoom speed when scrolling with the mouse wheel.

## Miscellaneous

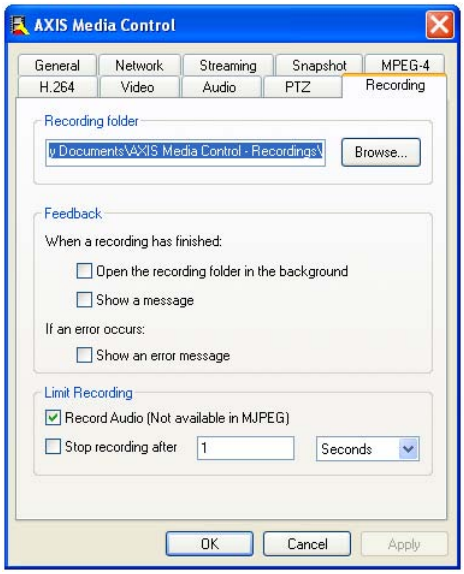
Set AMC to start in either Emulated Joystick Mode or Center Mode.

The default setting for PTZ is the Center Mode. When in Center Mode, click on any part of the image other than its exact center and the camera will move so that the point you clicked on becomes the new center of the image.

If you select Emulate Joystick Mode, the camera moves in the direction of the mouse pointer. If you click and hold down on the left mouse button, and then point your cursor at the lower left hand corner of the image, the camera continues to move left and down until you release the mouse button.

Select **Enable PTZ Overlays** to show the graphical overlays that normally appear in the image when viewing your camera on the Live View Web page. PTZ Overlays will only be visible when **Enable Overlays** is selected in the MPEG-4/H264 tab. See *PTZ Tab*, on page 25 and *PTZ Tab*, on page 25.

# Recording Tab




## Recording Folder

Specify the recording folder where recordings will be stored when the recording button is clicked. The default recording folder is **My Documents\AXIS Media Control – Recordings**. This folder will be created if it does not already exist.

If you want to save your recording to another folder, simply click on the Browse button and choose the folder you would like to use to save your recording.

If you have not already installed Windows Media Format Runtime (WMFR), see *Install Windows Media Format Runtime*, on page 13.

## Feedback

It is also possible to specify the form of feedback given when making a recording.

**When a recording has finished –** Windows can notify you that your recording is either complete or failed via a message, or via one of its system sounds (See Assign sounds to program events in your MS Help and Support files).

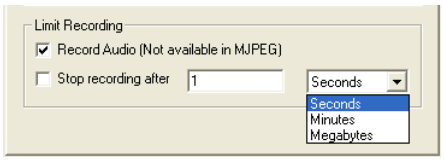
You can also select if you want the recording folder to open up in the background for quicker access to your recordings, and for an on screen message to appear when a recording is being made.

**If an error occurs –** If you would like to be notified of an error with your recording via a message on the Live View page, select this option. If you select Show an error message, system sound notification will be turned off.

See the figure below for an example.

## Limit Recording

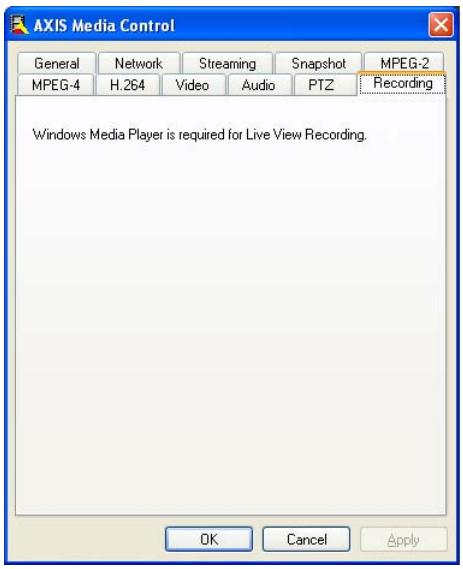
You can select to not record audio, and to limit the amount of time of your recording. Choose **Stop recording after** and set the number of minutes, or seconds for your recording. Or to conserve storage space, you can limit your recording to a specific size measured in megabytes.



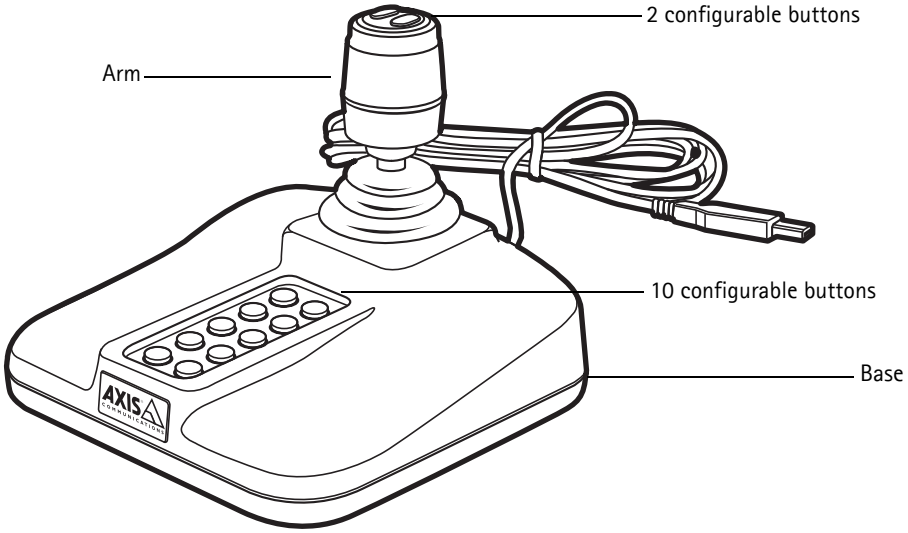
## Windows Media Format Runtime

If you have not already installed WMFR, you will not be able to record and the Recording tab will appear as the example below.

To install WMFR, you will need to download and install Windows Media Player. See *Install Windows Media Format Runtime*, on page 13.



# AXIS 295 Video Surveillance Joystick




An optional device that can be used with AMC is the AXIS 295 Surveillance Joystick. It is specifically designed for responsive and accurate control of Pan/tilt/zoom (PTZ) and dome cameras.

This joystick has 2 configurable buttons on its arm and 10 configurable buttons on its base.

While viewing the Live View image of your camera in your browser, you can move the joystick arm left/right and forwards/backwards to pan the camera to different positions.

The joystick arm can also be turned clockwise to zoom the camera in on an image and counter clockwise to zoom the camera out from an image.

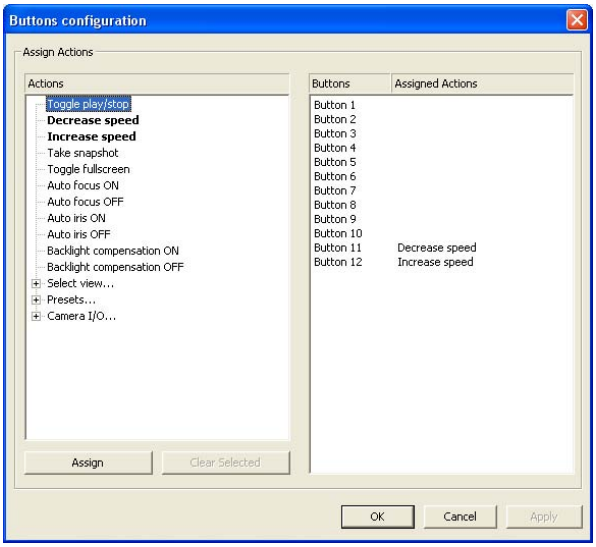
For more information see *Joystick Settings*, on page 25.

## Joystick Button Configuration

### Using Your Mouse

Follow the steps below to configure one or more of the 12 joystick buttons:

1. Click once with your left mouse button to highlight one of the actions such as **Toggle play/stop** listed in the menu under **Actions**.



2. Click on **Assign** to bring up the button selection window.

"Toggle play/stop"
Press the joystick button to be assigned to "Toggle play/stop" or select the button from the list below.
Button 1
OK
Cancel

3. Select one of the buttons in the menu such as Button 1 shown in the figure above and click on the **Okay** button.

You can see under **Assigned Actions**, in the figure above, that buttons 11 and 12 have already been assigned a specific action. Note also that assigned actions are highlighted under **Actions**, and actual button configurations for your camera may be different from the example above.

## Using the AXIS 295 Video Surveillance Joystick

Follow the steps below to configure your joystick buttons using your AXIS 295 Video Surveillance Joystick:

1. Click once with your left mouse button to highlight one of the actions such as **Toggle play/stop** listed in the menu under **Actions**.
2. Press the configurable joystick button that you want to assign to that action and the button selection window will pop up with the button you selected highlighted in the menu. Press Return to confirm your selection.

You can see under **Assigned Actions**, in the figure above, that buttons 11 and 12 have already been assigned a specific action. Note also that assigned actions are highlighted under **Actions**, and actual button configurations for your camera may be different from the example above.